

Patent [19]

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[54] PHOTOCATALYST REACTION DEVICE

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[57] ABSTRACT

PURPOSE: To provide a photocatalyst reaction device for decomposing harmful substances contained in a fluid and turning them into harmless by using a photocatalyst for an electron having reduction and oxidative activities excited by the irradiation of light and semiconductors forming holes.

CONSTITUTION: A device comprises protection tubes 7 composed of a light transmitting material including bar-shaped ultraviolet lamps 2 irradiating light having the wavelength in the range from ultraviolet rays to visible light rays, light source units 1 with frames supporting both ends of a plurality of protection tubes 7 arranged in parallel with one another, and catalyst filter units 10 having catalyst nets 11, on the surfaces of which the photocatalyst is fixed, and frames for fixing the peripheries of the catalyst nets 11. The light source units 1 and the catalyst filter units 10 are located in a circuit, in which a fluid to be treated is passed.
